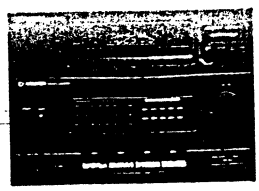
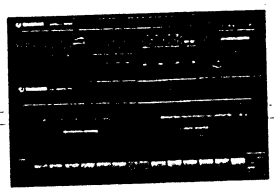
THOMSON CONSUMER ELECTRONICS
MARKETING FRANCE
Département Services

DOCUMENTATION TECHNIQUE

ATKD 1501

ENSEMBLE AMPLIFICATEUR / SYNTONISEUR / LECTEUR - ENREGISTREUR DE CASSETTES / LECTEUR DE DISQUE AUDIO NUMERIQUE HAUTE FIDELITE





MS 250

Technical data - Caractéristiques principales
Technische daten - Caracteristicas del aparato - Dati tecnici

Type of set : Type d'appareil : Gerateart : Tipo de aparato : Tipo d'apparecchio :	Two-in-one horizontal, combinatioinHifi Ensemble compact stéréophonique Hifi 2er Horizontal Kompaktanlage Hifi Equipo compacto estereofónico Hifi Insieme compatto stereofonico Hifi	↔ 280 mm ↕ 260 mm ↗ 185 mm 8 kg
Power supply : Alimentation : Stromversorgung : Alimentación : Alimentazione :	220 V ~	Nominal output power : Puissance nominale de sortie : Nennausgangsleistung : Potencia nominal de salida : potenza nominale di uscita : 2 x 15 W (1% THD)
Signal to noise ratio : Rapport signal / bruit : Geräuschspannungsabstand : Relación señal / ruido : Rapporto segnale / disturbo :	40 dB	Sensitivity : Sensibilité : Empfindlichkeit : FM - MF : 5 µV (S/N = 26 dB) Sensibilidad : MW - PO : 500 µV/m (S/N = 20 dB) Sensibilità :
Frequency response : Courbe de réponse : Frequenzgang : Curva de respuesta : Curva di risposta :	63 Hz - 12 kHz (+3 / -5 dB)	Signal to noise ratio : Rapport signal / bruit : Geräuschspannungsabstand : 42 dB Relación señal / ruido : Rapporto segnale / disturbo :
Wow and fluttter : Fluctuations : Gleichlauf : Fluctuaciones : Fluttuazioni :	0,25 %	→ 4,75 cm/s <<◀◀ >> <<▶▶>> C60 : 120 s
Disc rotation speed : Vitesse de rotation du disque : CD-Drehgeschwindigkeit : Velocidad de rotación del disco : Velocità di rotazione del disco :	200 → 500 tr/m	Frequency response : Courbe de réponse : Frequenzgang : Curva de respuesta : Curva di risposta : 20 Hz - 20 kHz (+ 1 / -2,5 dB)
Stereo separation : Diaphonie : Übersprechdämpfung : Diafonía : Diafonia :	45 dB	Signal to noise ratio : Rapport signal / bruit : Geräuschspannungsabstand : ≥ 80 dB Relación señal / ruido : Rapporto segnale / disturbo :

DAD

19, AVENUE DUBONNET - B.P.25
92403 COURBEVOIE CEDEX
(1) 46 91 36 00 - TELEX : 616 524 F - TELECOPIE : (1) 46 91 01 80

Code : 200 CP 7666 - 0992/2 M - ATKD 1501 - Imp. Servant-Crouzet

THOMSON CONSUMER ELECTRONICS
MARKETING FRANCE
S.A. AU CAPITAL DE 200 000 000 F
SIEGE SOCIAL : 9, Place des Vosges - La Défense 5
92400 COURBEVOIE
RCS NANTERRE B 322 019 464

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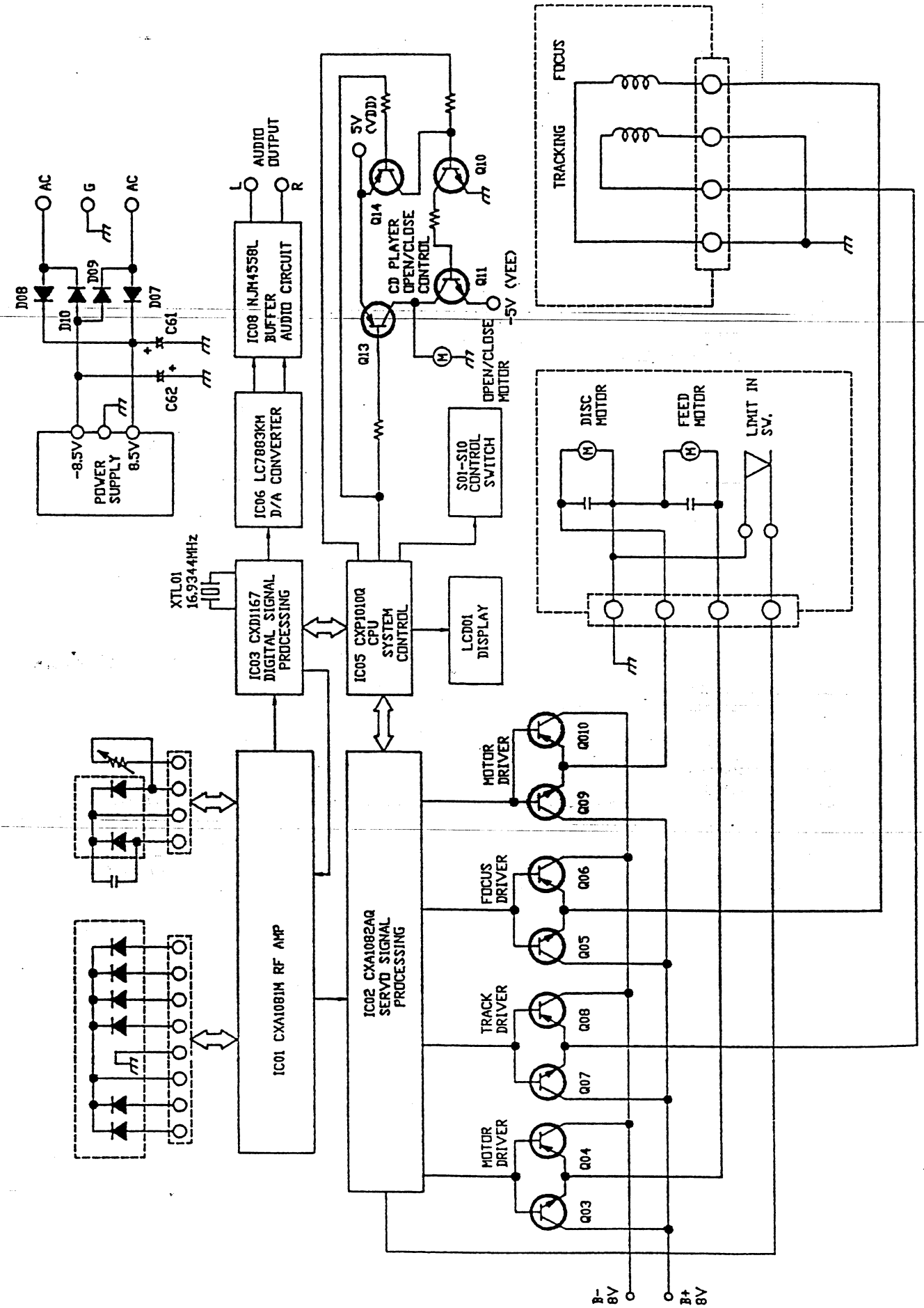
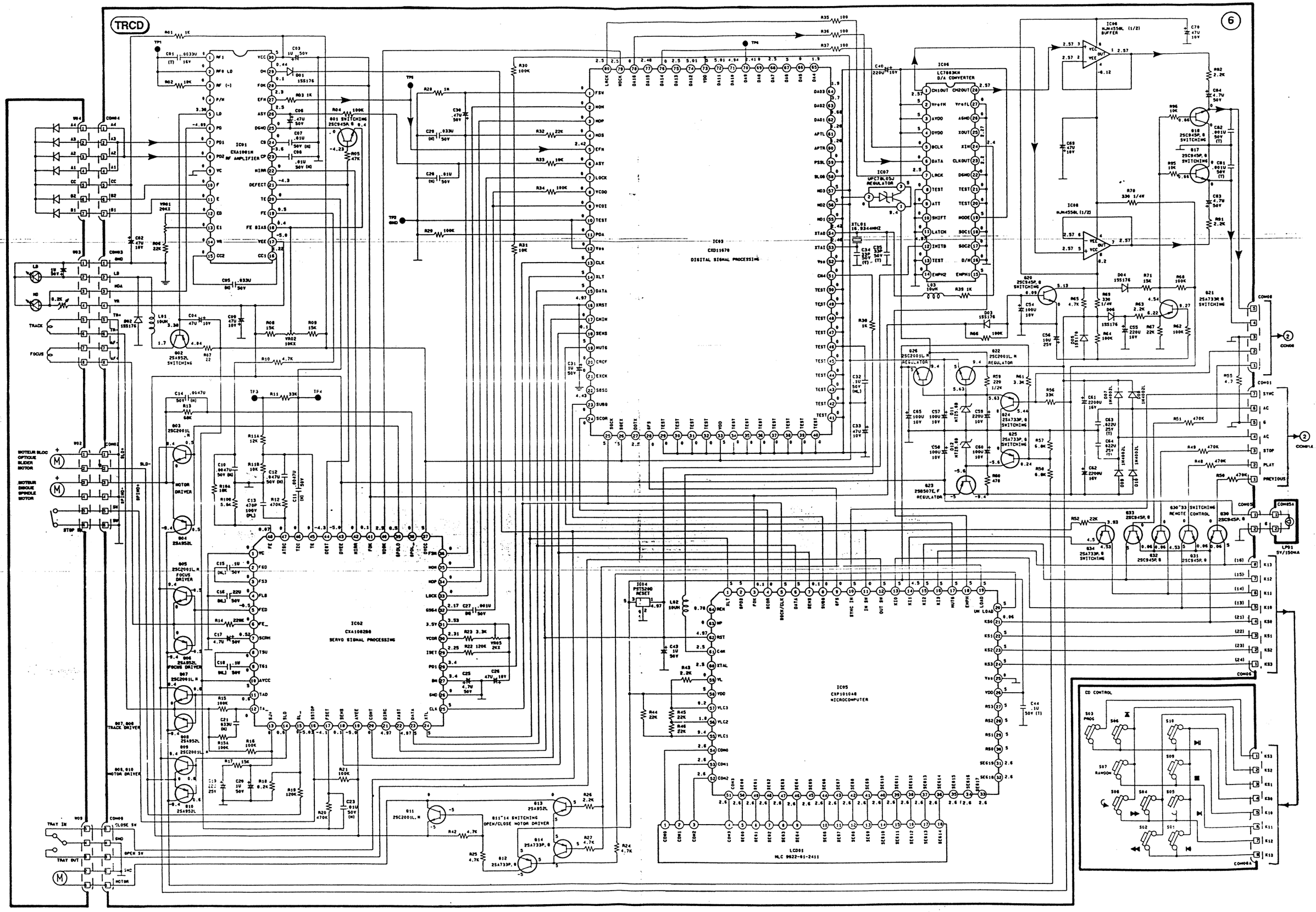
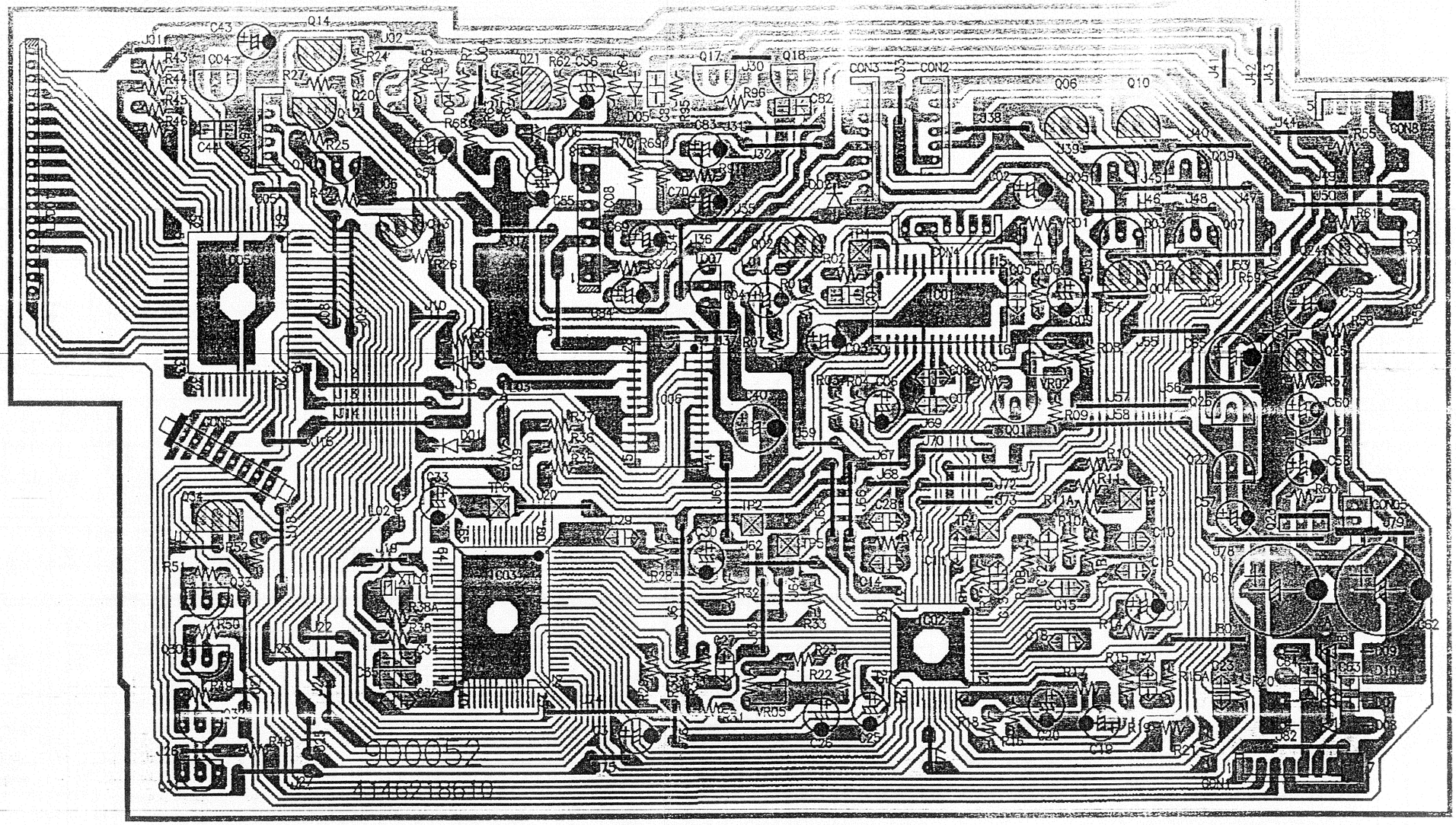
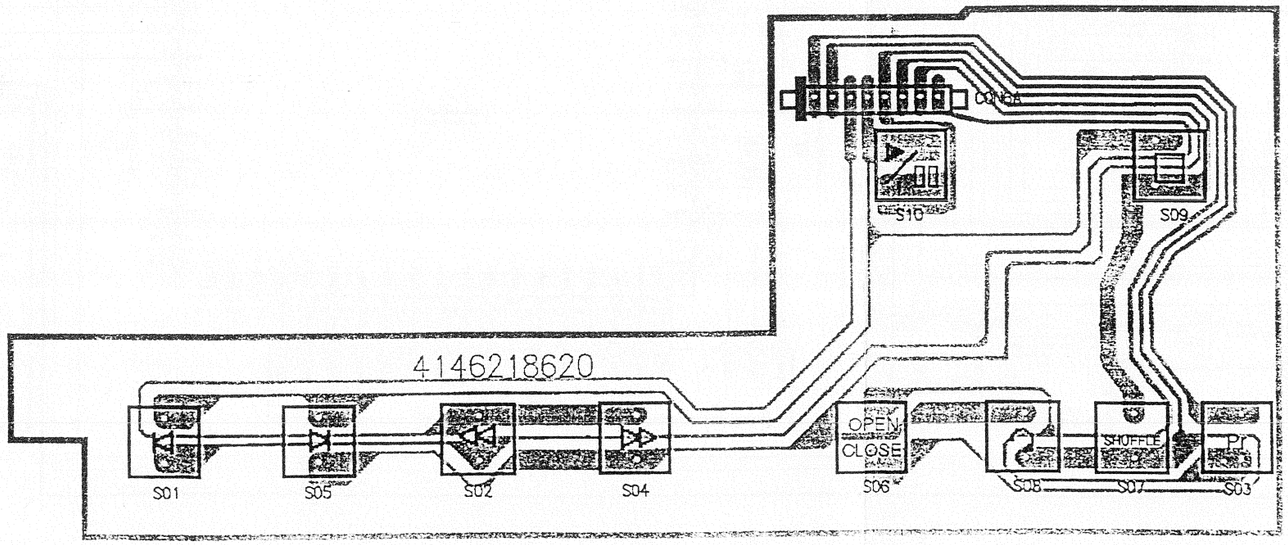
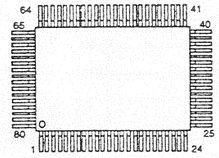
DIGITAL - DIGITALVERARBEITUNG BLOCKSCHALTBILD - ESQUEMA DE BLOQUES DEL TRATAMIENTO DIGITAL - SCHEMA A BLOCCHI ELABORAZIONE DIGITAL




TRCD
6
IC01
CXA1981N
RF AMPLIFIER
IC02
CXA1082BR
SERVO SIGNAL PROCESSING
IC03
CXD1167Q
DIGITAL SIGNAL PROCESSING
IC04
PST5290
RESET
IC05
CXP101048
MICROCOMPUTER
IC06
LC7883KM
D/A CONVERTER
IC07
UPC78L05J
REGULATOR
IC08
NJM4558L (1/2)
BUFFER
IC09
NJM4558L (1/2)
LCD01
MLC 9622-01-2411
XTL01
16.9344MHZ
L01
10uH
L02
10uH
L03
10uH
TRACK
FOCUS
SLED MOTOR
SPINDLE MOTOR
STOP SW
TRAY IN
TRAY OUT
OPEN SW
CLOSE SW
MOTOR
MOTOR DRIVER
FOCUS DRIVER
TRACK DRIVER
SLED DRIVER
SPINDLE DRIVER
OPTICUS BLOCK MOTOR
DISCUS SPINDLE MOTOR
SLED MOTOR
OPEN/CLOSE MOTOR DRIVER
CD CONTROL
SW3 PROG
SW7 RANDOM
SW8
SW4
SW5
SW2
SW1
SW6
S10
S09
S08
S07
S06
S05
S04
S03
S02
S01
LP01
5V/150MA
SWITCHING REGULATOR
SWITCHING CONTROL
REMOTE
CON01
CON02
CON03
CON04
CON05
CON06
CON07
CON08
CON08A
CON09
CON01A
STMC
AC
G
AC
STOP
PLAY
PREVIOUS
TRACK
FOCUS
TRAY IN
TRAY OUT
OPEN SW
CLOSE SW
MOTOR
LD
LD-
SPINDO+
SPINDO-
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
TP1
TP2
TP3
TP4
TP5
TP6
VR01
20KΩ
VR02
10KK
VR03
VR04
VR05
2KΩ
D01
1SS176
D02
1SS176
D03
1SS176
D04
1SS176
D05
1SS176
D06
1SS176
D07
1N4002L
D08
1N4002L
D09
1N4002L
D10
1N4002L
D11
MTZ5.6B
D12
MTZ6.8B
Q01
25C2001L.M
Q02
25A952L
SWITCHING
Q03
25C2001L.M
Q04
25A952L
Q05
25C2001L.M
FOCUS DRIVER
Q06
25A952L
FOCUS DRIVER
Q07
25C2001L.M
Q08
25A952L
Q09
25C2001L.M
Q10
25A952L
Q11
25C2001L.M
Q12
25A733P.O
Q13
25A952L
Q14
25A733P.O
Q15
25A733P.O
Q16
25A733P.O
Q17
25C945P.O
SWITCHING
Q18
25C945P.O
SWITCHING
Q19
25C945P.O
SWITCHING
Q20
25C945P.O
SWITCHING
Q21
25A733M.O
SWITCHING
Q22
25C2001L.M
REGULATOR
Q23
25B507E.F
REGULATOR
Q24
25A733P.O
SWITCHING
Q25
25A733P.O
SWITCHING
Q26
25C2001L.M
REGULATOR
Q30
25C945P.O
SWITCHING
REMOTE
CONTROL
Q31
25C945P.O
Q32
25C945P.O
Q33
25C945P.O
Q34
25A733M.O
SWITCHING
W01
W02
W03
W04
CON01
CON02
CON03
CON04
CON05
CON06
CON07
CON08
CON08A
CON09
CON01A
BLD
BLD-
SPINDO+
SPINDO-
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
LD
LD-
TR+
TR-
FE+
FE-
SLD+
SLD-
VC
VR
CC
CC1
CC2
GND
LD
HOLD
RESET
XRST
XTAL
XTAI
XTAO
CLK
DATA
XLT
SCOR
SBCK
SBEX
SQCK
SQDT
SQFS
SUBQ
SCOR
SENS
XRST
DATA
CLK

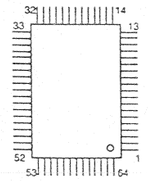






CXD 1167 Q
LC 7230
LC 8287

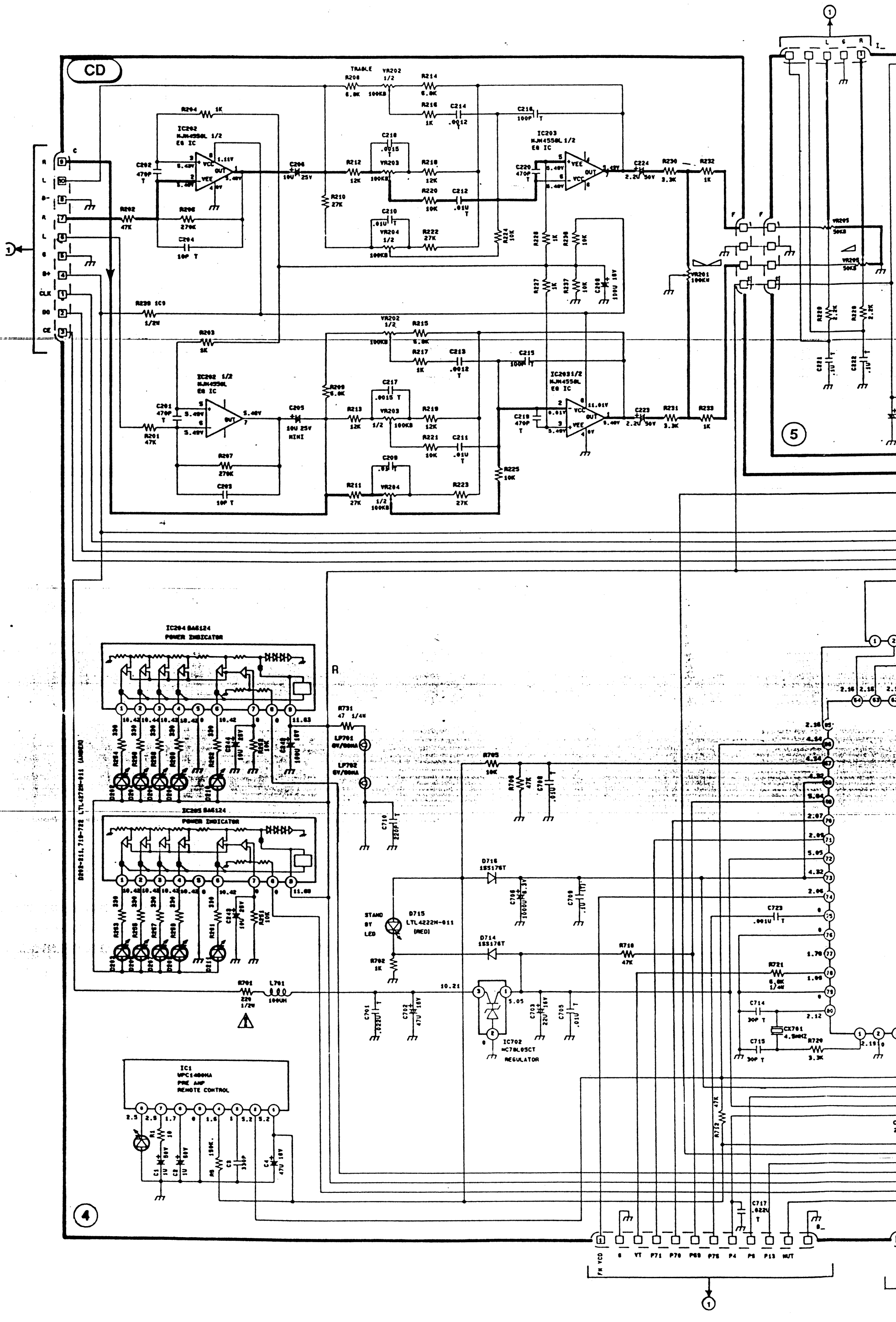
Digital processing P.C.B.
Platine traitement digital
Digitalverarbeitung L.T.P.
Platina tratamiento digital
Piastra elaborazione digital



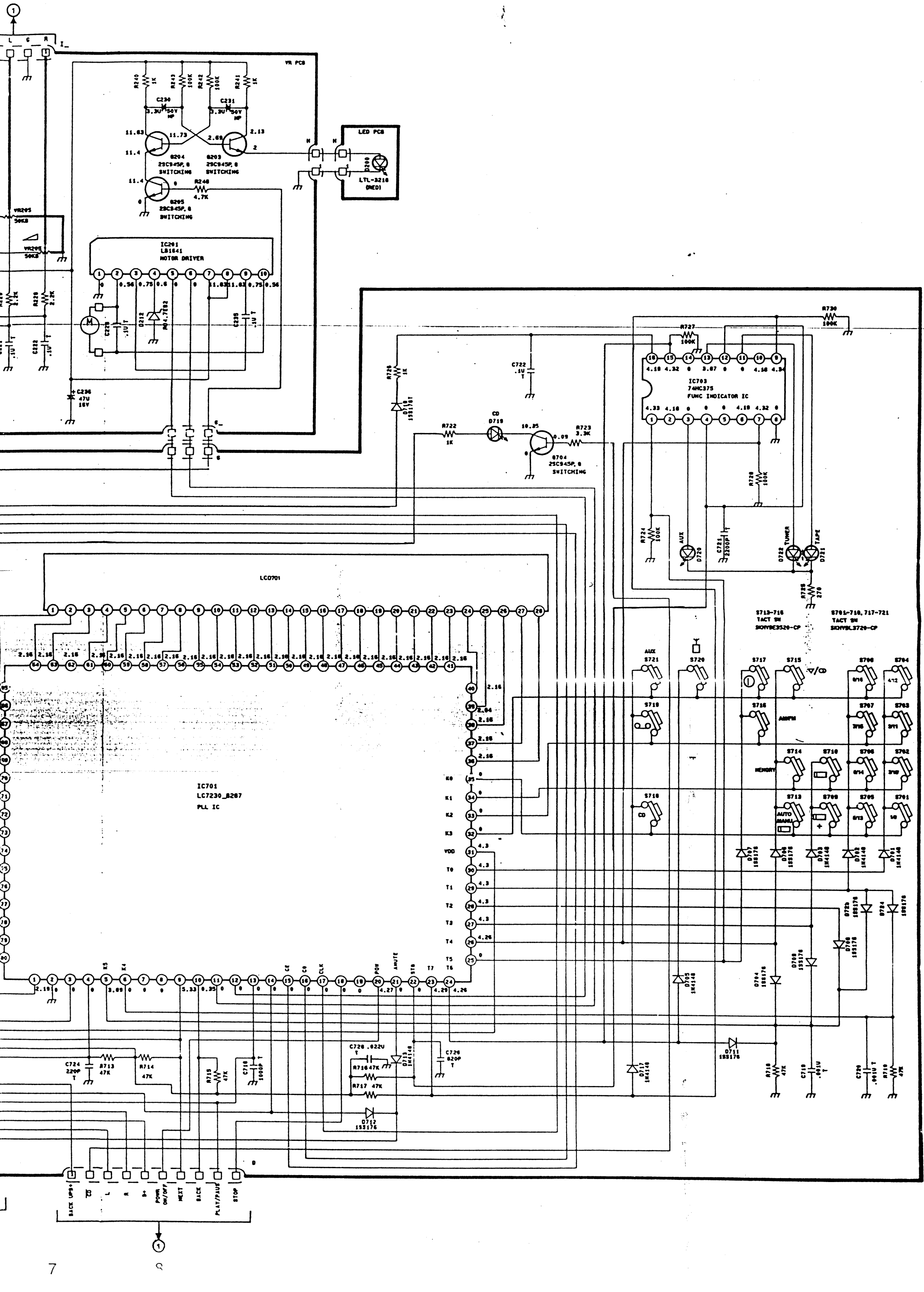
CXP 1010 AQ

Controls P.C.B.
Platine commandes
Bedienteil L.T.P.
Platina de mandos
Piastra comandi

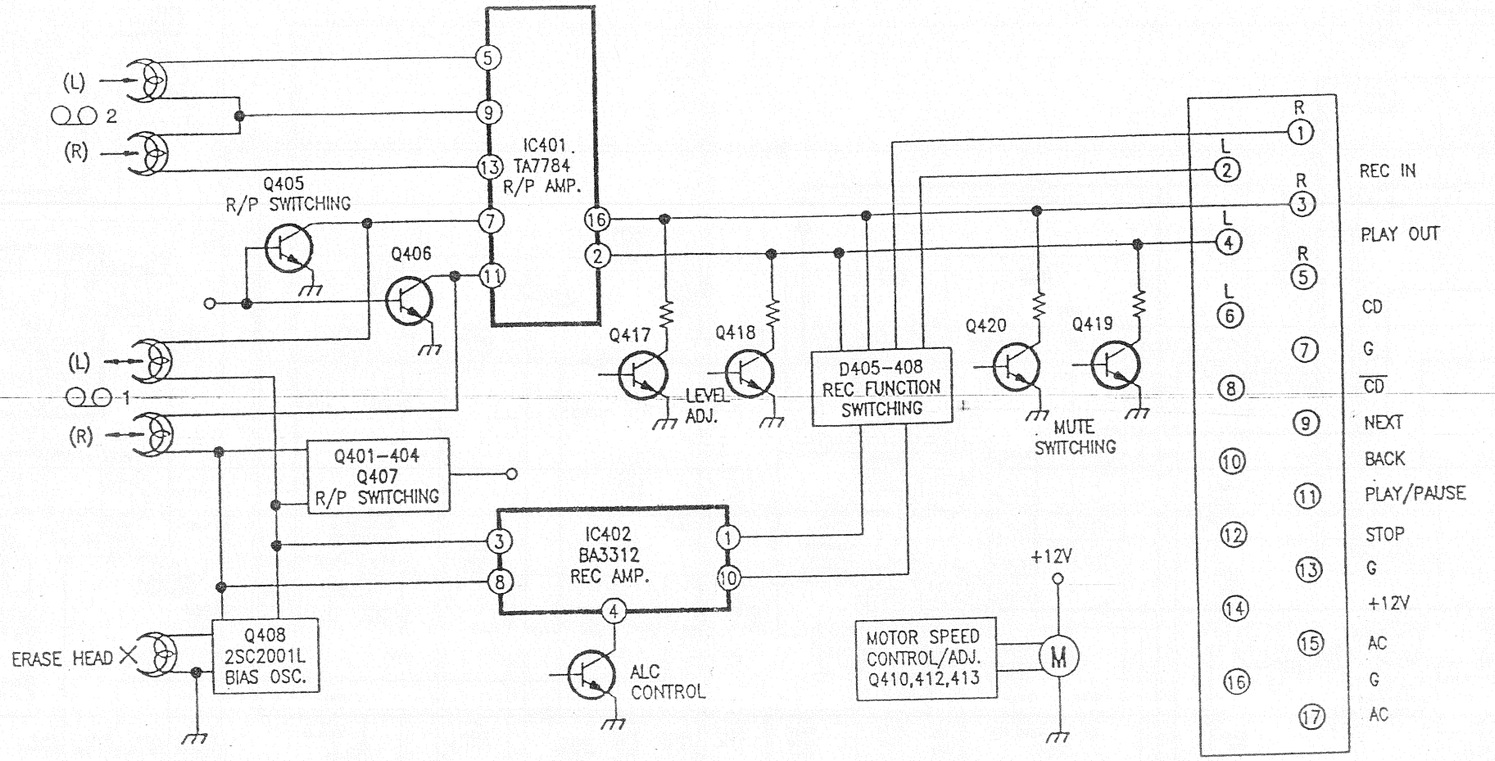
CONTROLS/ DISPLAY SCHEMATIC DIAGRAM - SCHEMA COMMANDES / AFFICHEUR -



CHEUR - BEDIENTEIL / ANZEIGER SCHALTBILD - ESQUEMA MANDOS / INDICADOR - SCHEMA COM



RECORD / PLAYBACK BLOCK DIAGRAM - SCHEMA SYNOPTIQUE ENREGISTREMENT / LECTURE - AUFNAHME / WIEDERGABE BLOCKSCHALTBILD - ESQUEMA DE BLOQUES GRABACION / REPRODUCCIÓN - SCHEMA A BLOCCHI REGISTRAZIONE / RIPRODUZIONE



MC 78L05 CT

DTC 124 N

2 SK 161 GR

PST 5200

STK 4412

LA 1186 N

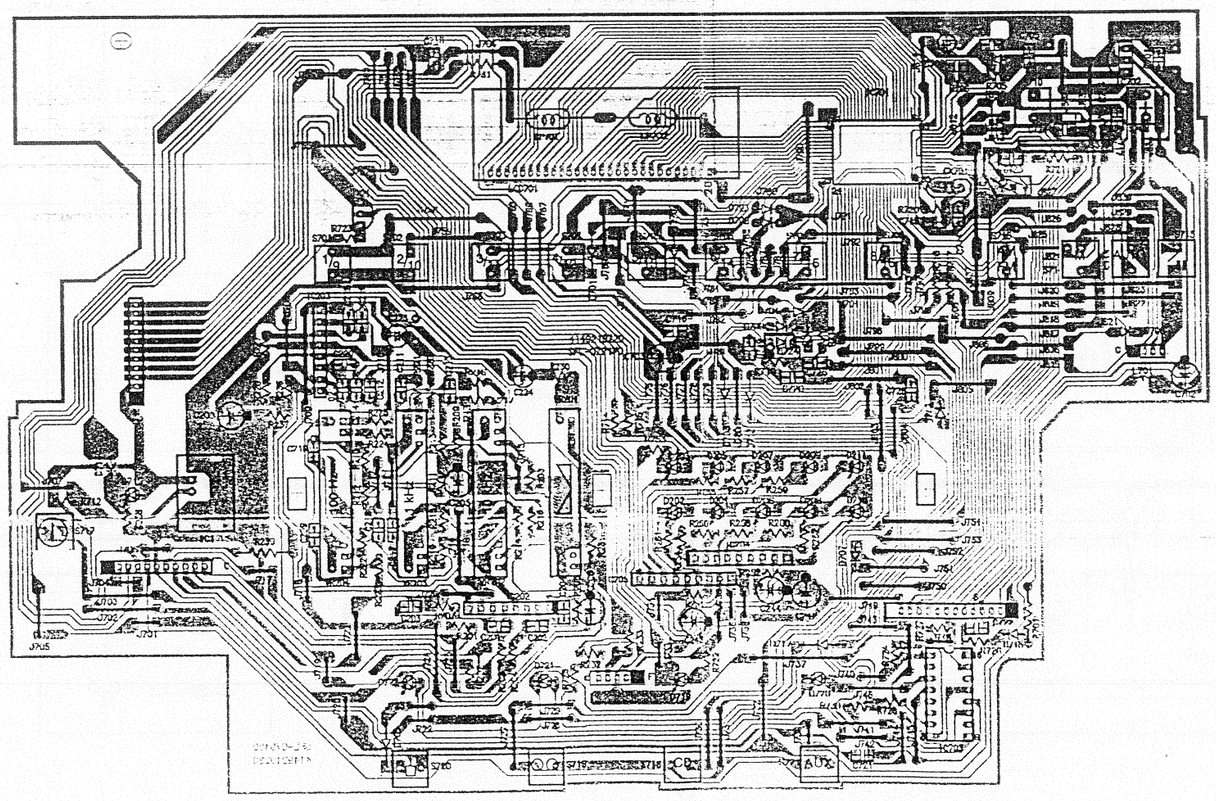
BA 6124

2 SA 733 P,Q
2 SA 952 L
2 SC 945 P,Q
2 SC 1815 GR
2 SC 2001 L

2 SA 934 R

2 SC 1675L
2 SB 507 VE

Control / display P.C.B.
Platine commandes / afficheurs
Bedienteil / Anzeiger L.T.P.
Platina de mandos / indicadores
Piastra comandi / indicatore



UPC 78 M 12 H

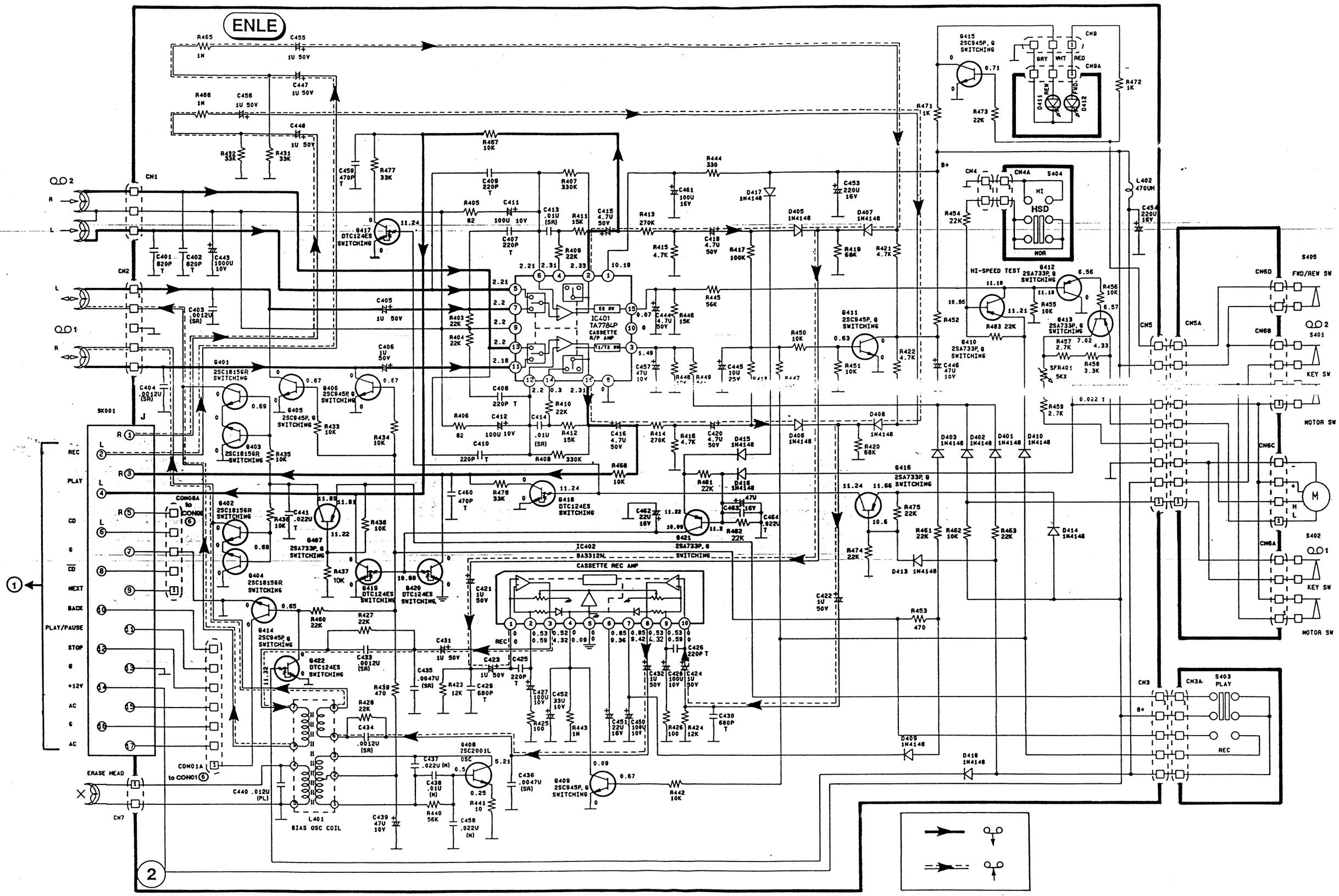
BA 3312

2 SB 507 VE, F

NJM 4558 L

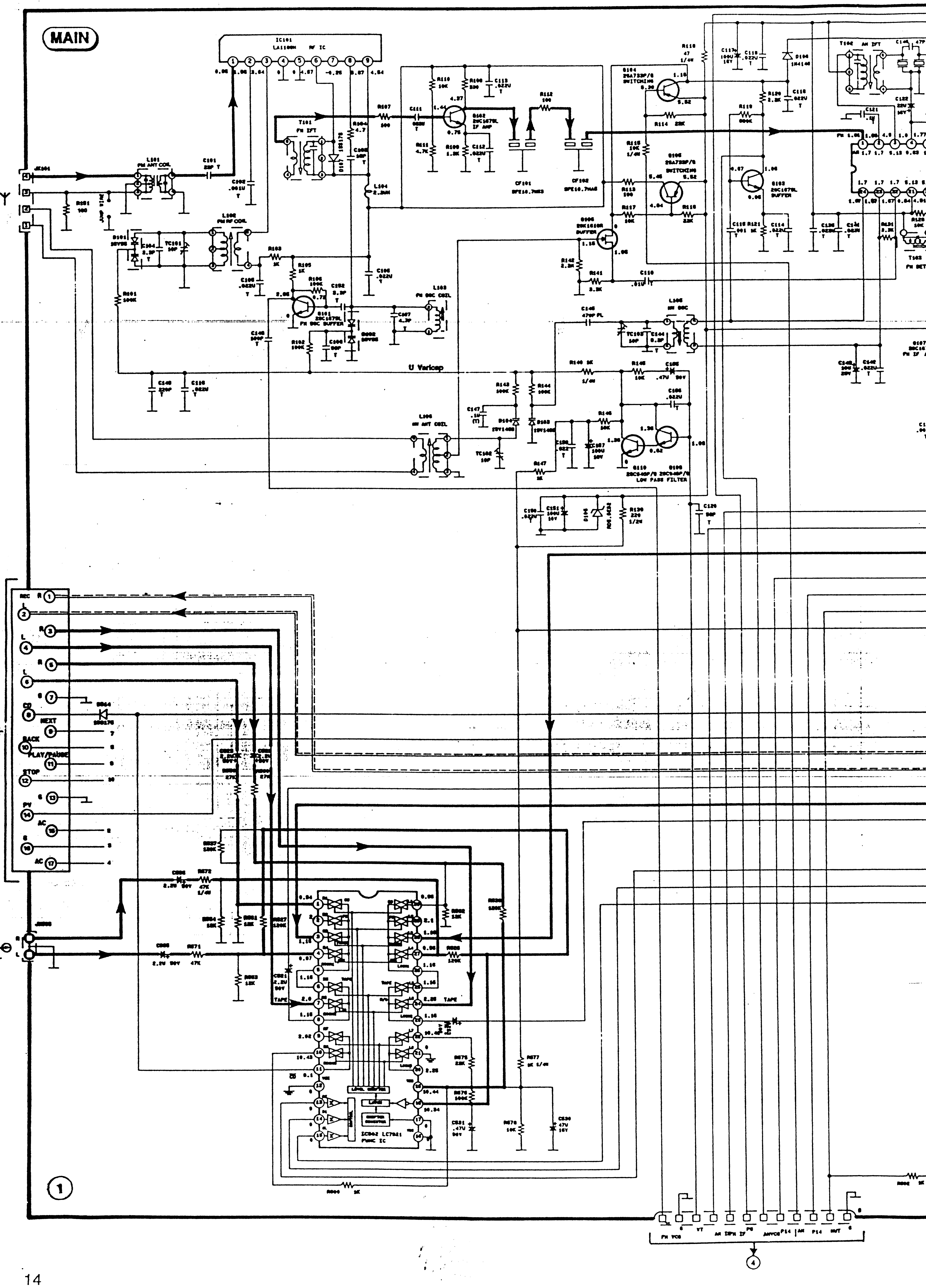
UPC 78M12H

LB 1641

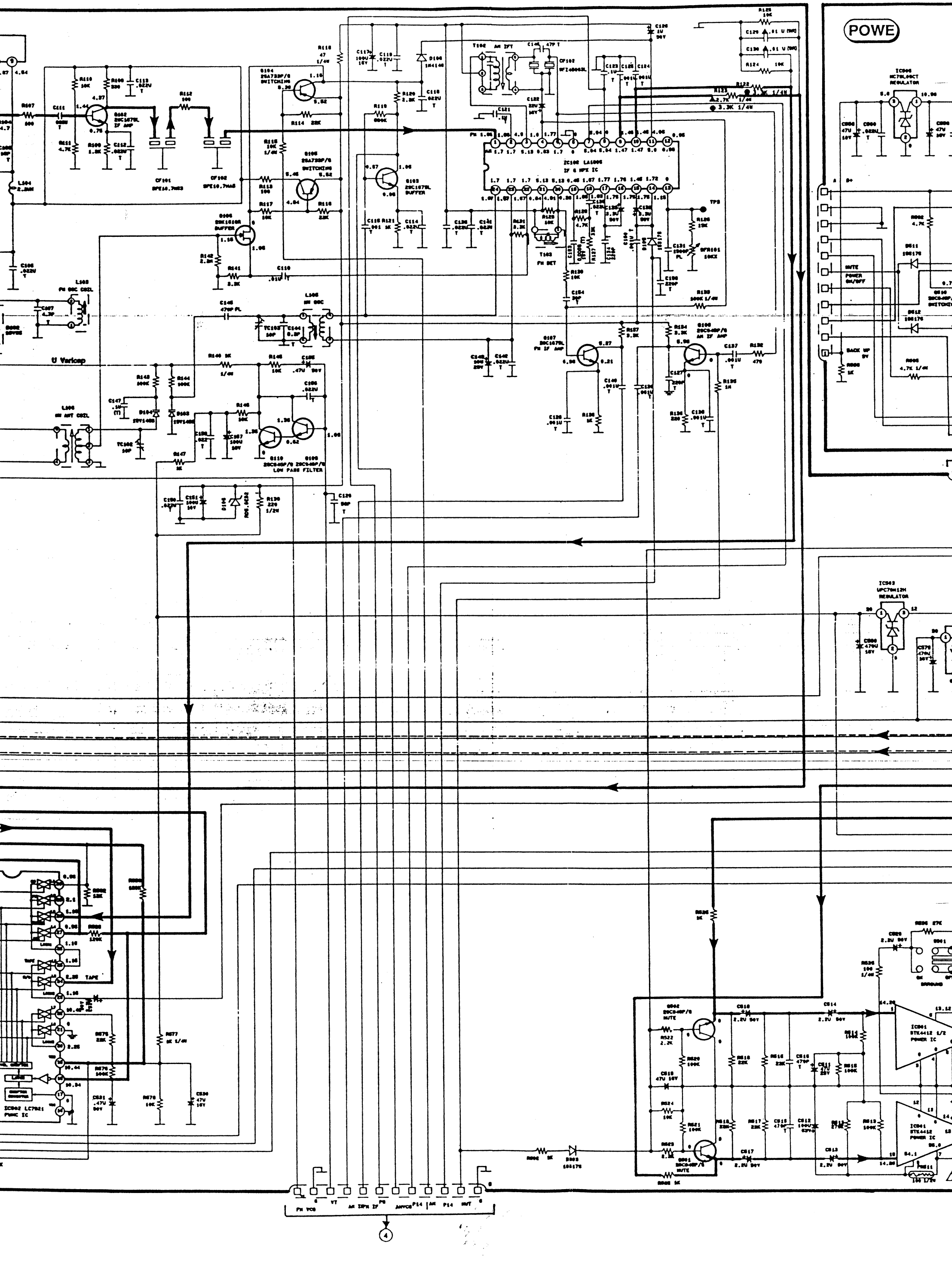

ENLE
IC401 TA7784P CASSETTE R/P AMP
IC402 BA3312NL CASSETTE REC AMP
HI-SPEED TEST
HSD
SWITCHING
CN1
CN2
CN3
CN3A
CN4
CN4A
CN5
CN5A
CN6A
CN6B
CN6C
CN6D
CN7
CN9
CN9A
CON01A
CON08A
S401
S402
S403
S404
S405
FWD/REW SW
KEY SW
MOTOR SW
REC
PLAY
HI
NOR
B+
ERASE HEAD
BIAS OSC COIL
GRY
WHT
RED
REC
PLAY
CD
NEXT
BACK
PLAY/PAUSE
STOP
+12V
AC

ATKD 1501

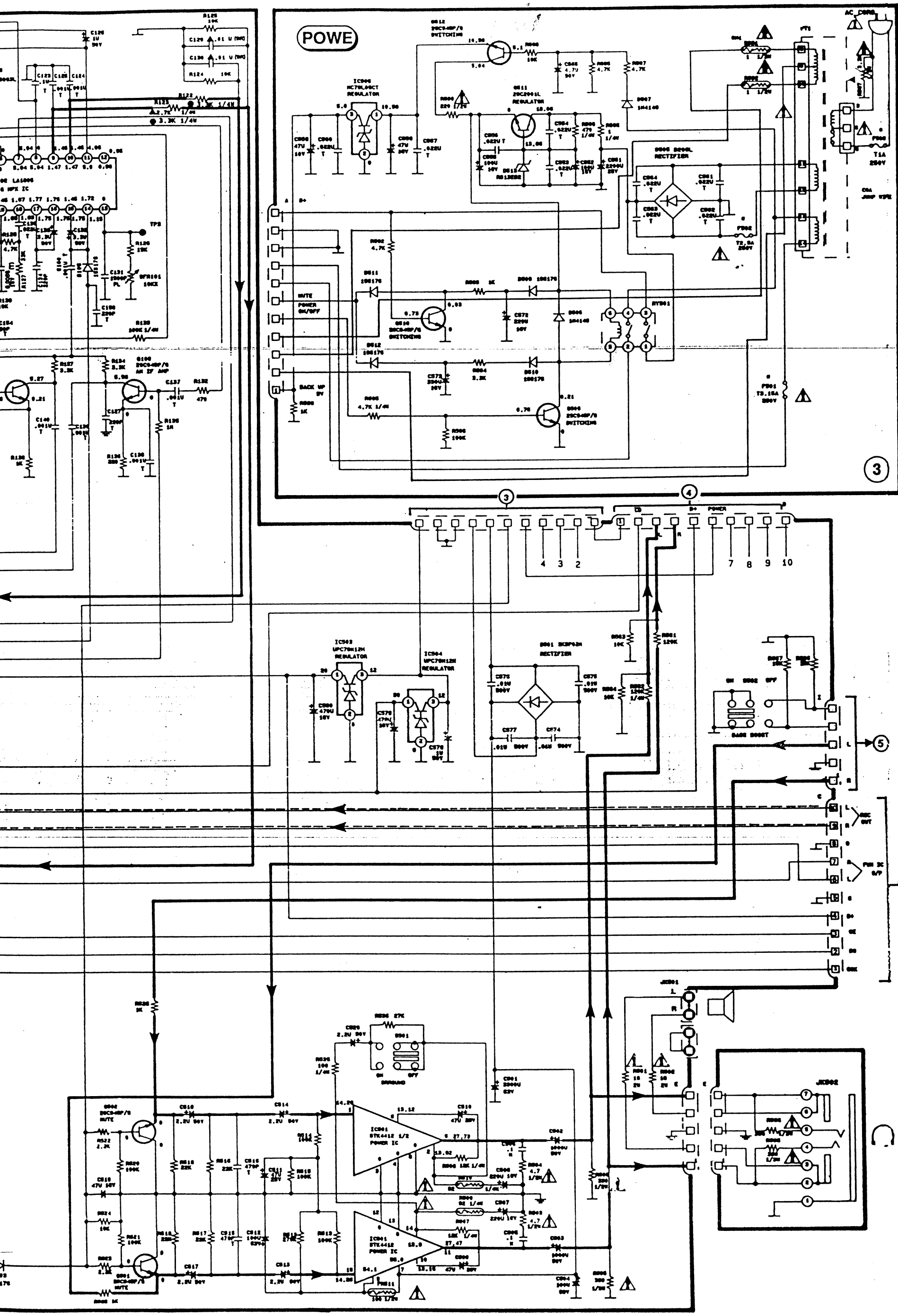
MAIN SCHEMATIC DIAGRAM - SCHEMA PRINCIPAL - GRUNDPLATTE SCHALTBILD - ESQUEMA

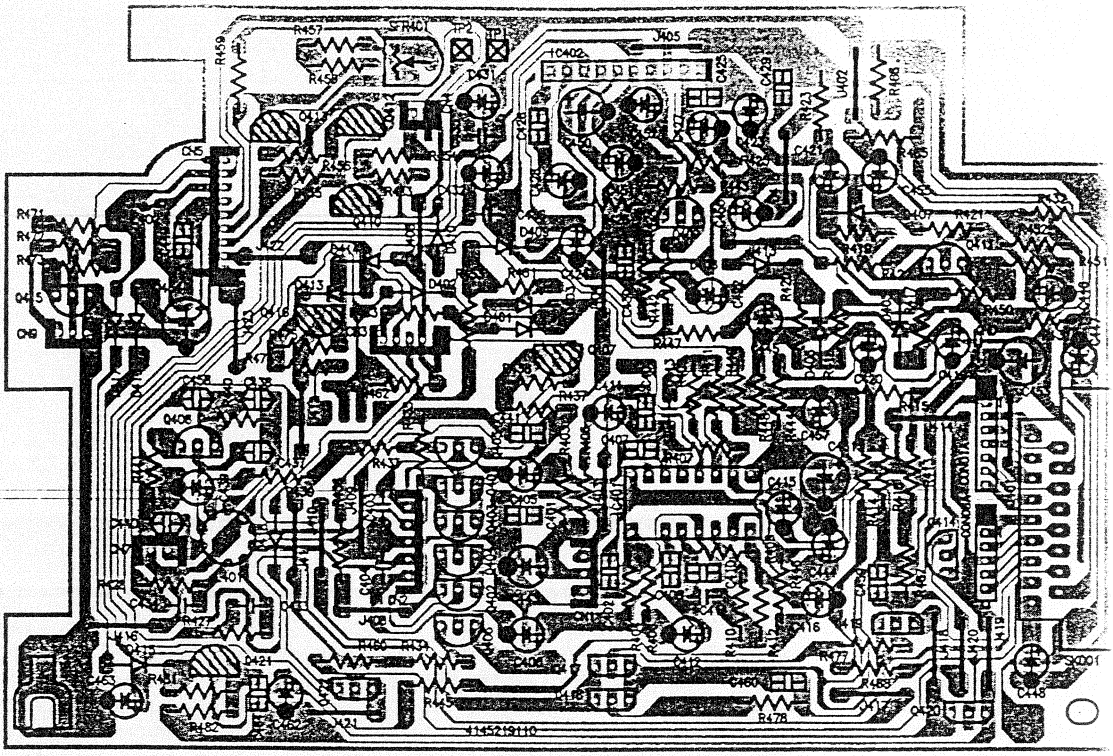

MAIN
IC101
RF IC
T101
FM IFT
L101
FM ANT COIL
L102
FM RF COIL
L103
FM OSC COIL
L104
2.2UH
Q101
FM OSC BUFFER
Q102
IF AMP
CF101
CF102
Q104
SWITCHING
Q105
SWITCHING
Q106
BUFFER
Q103
BUFFER
T102
AM IFT
T103
L105
L106
AM ANT COIL
U Varicap
Q110
Q109
LOW PASS FILTER
REC
CD
NEXT
BACK
PLAY/PAUSE
STOP
PV
AC
TAPE
AUX
IC502 LC7821
FUNC IC
FM VCO
VT
AM
IF
AMVCO
P14
AM
P14
MUT
1
2
4

HEMA PRINCIPAL - GRUNDPLATTE SCHALTBILD - ESQUEMA PRINCIPAL - SCHEMA PRINCIPALE



PRINCIPAL - SCHEMA PRINCIPALE



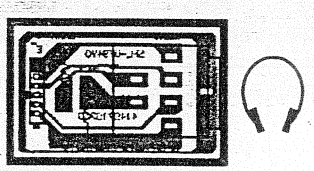


S405
FWD/REW SW
2
S401
KEY SW
MOTOR SW

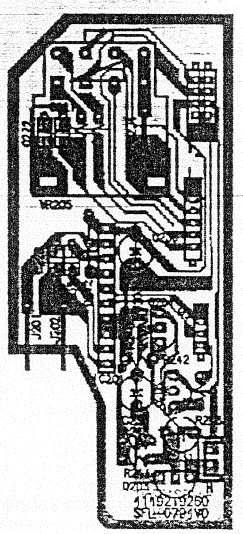
Playback / record switching P.C.B.
Platine commutation enregistrement / lecture
Àufnahme / Wiedergabe shaltung L.T.P.
Platina conmutacion grabación / reproducción
Piastra commutazione registrazione / riproduzione

Component side
Côté composants
Bestückungsseite
Lado componentes
Lato componenti

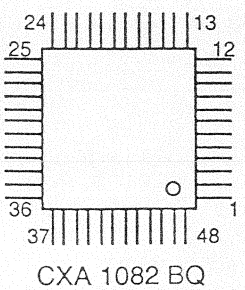
M
S402
1
KEY SW
MOTOR SW



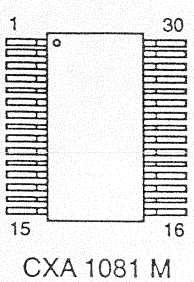
Headphone-jack P.C.B.
Platine prise-casque
Kopfhörerbuchse L.T.P.
Platina toma auriculares
Piastra presa per cuffia



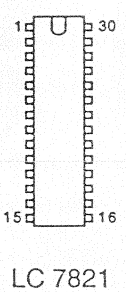
Volume P.C.B.
Platine volume
Lautstärke L.T.P.
Platina volumen
Piastra volume



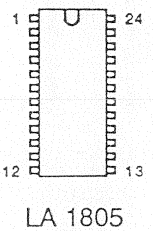
CXA 1082 BQ



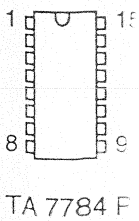
CXA 1081 M



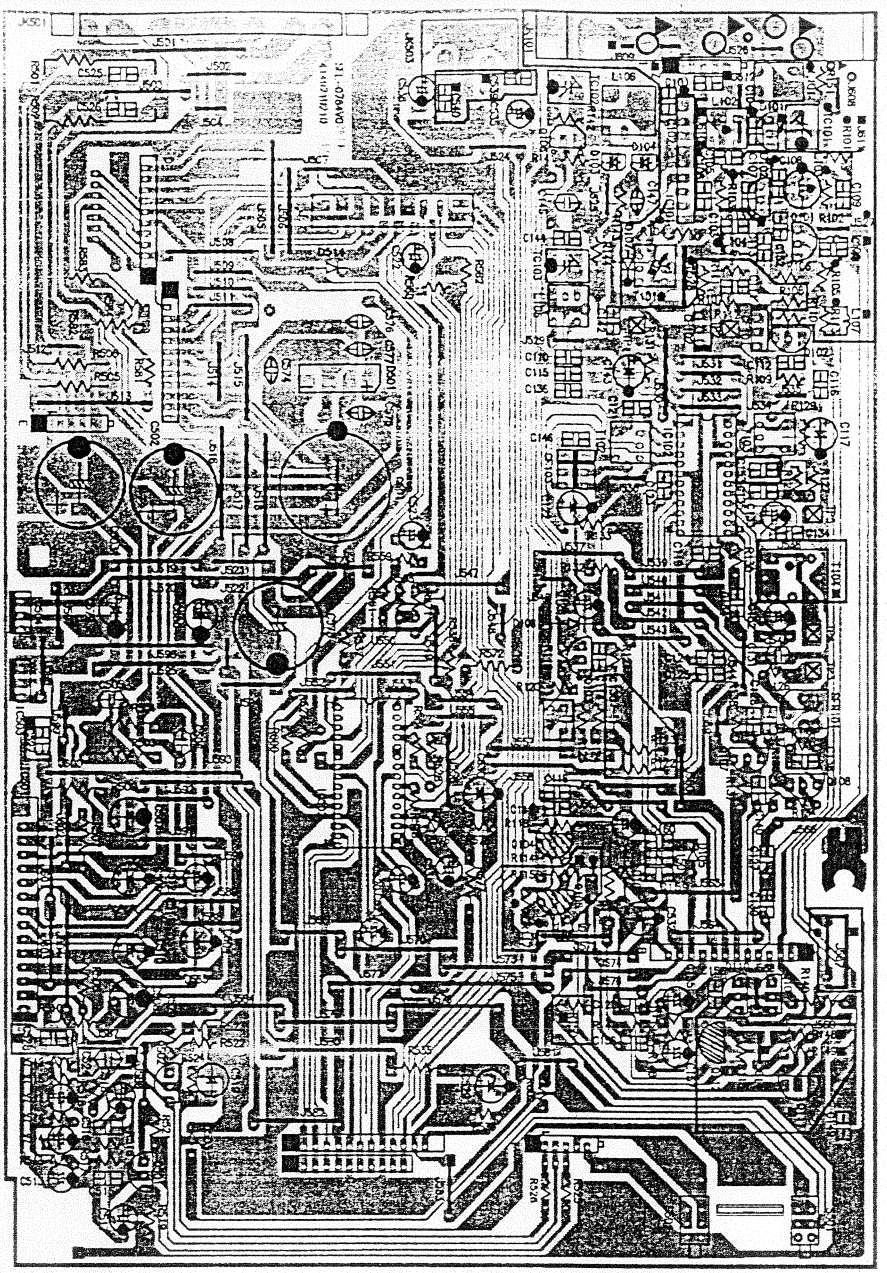
LC 7821



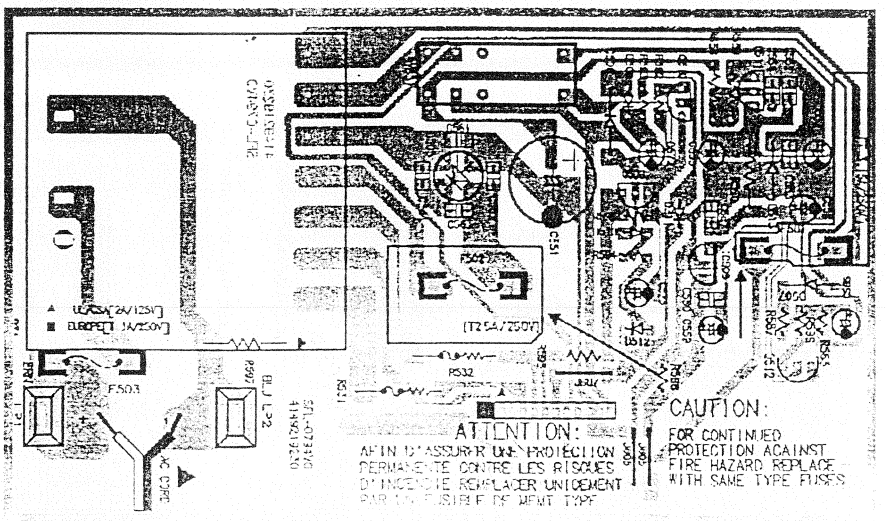
LA 1805



TA 7784 P



Main P.C.B.
Platine principale
Grundplatte
Platina principal
Piastra principale



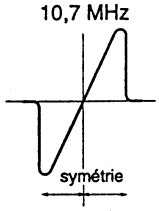
Power unit P.C.B.
Platine secteur
Netzanschluss L.T.P.
Platina de red
Piastra di rete

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - AJUSTES - REGOLAZIONE

AM alignement - réglages AM

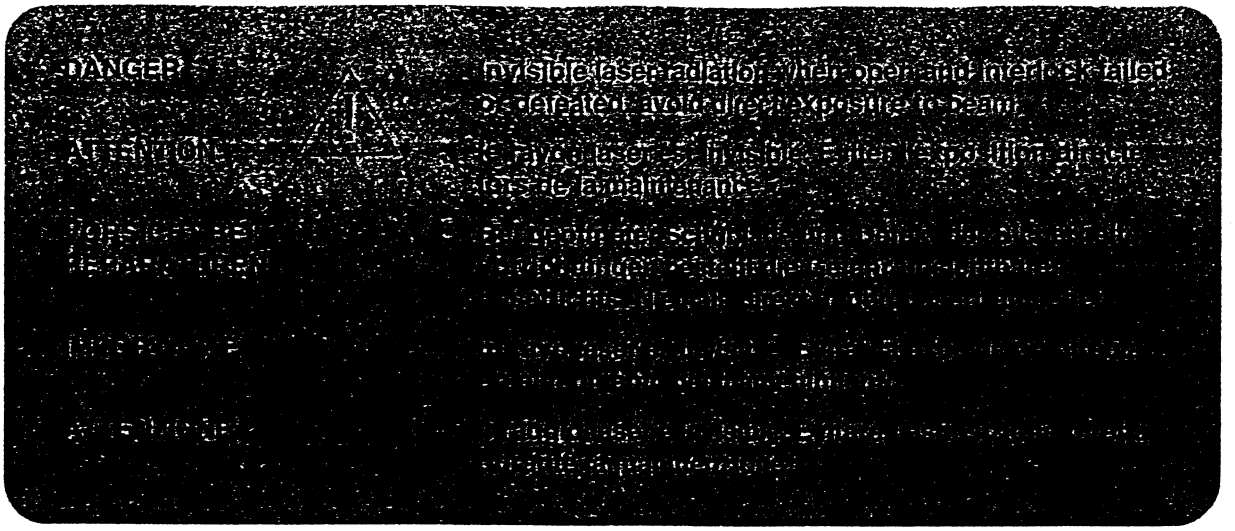
		Gf	f	10888 KHZ		V
IF	1	Ve 10 - 100 mV	450 kHz		T 102	max.
MW PO	2	Gf Ve > 1000 µV/m	530 kHz	530 kHz	L 105	V = 1 V ± 0,05V
	3		1710 kHz	1710 kHz	TC 103	V = 8,5 V ± 0,05 V
	4		600 kHz	600 kHz	L 106	max.
	5		1400 kHz	1400 kHz	TC 102	

FM alignement - réglages FM

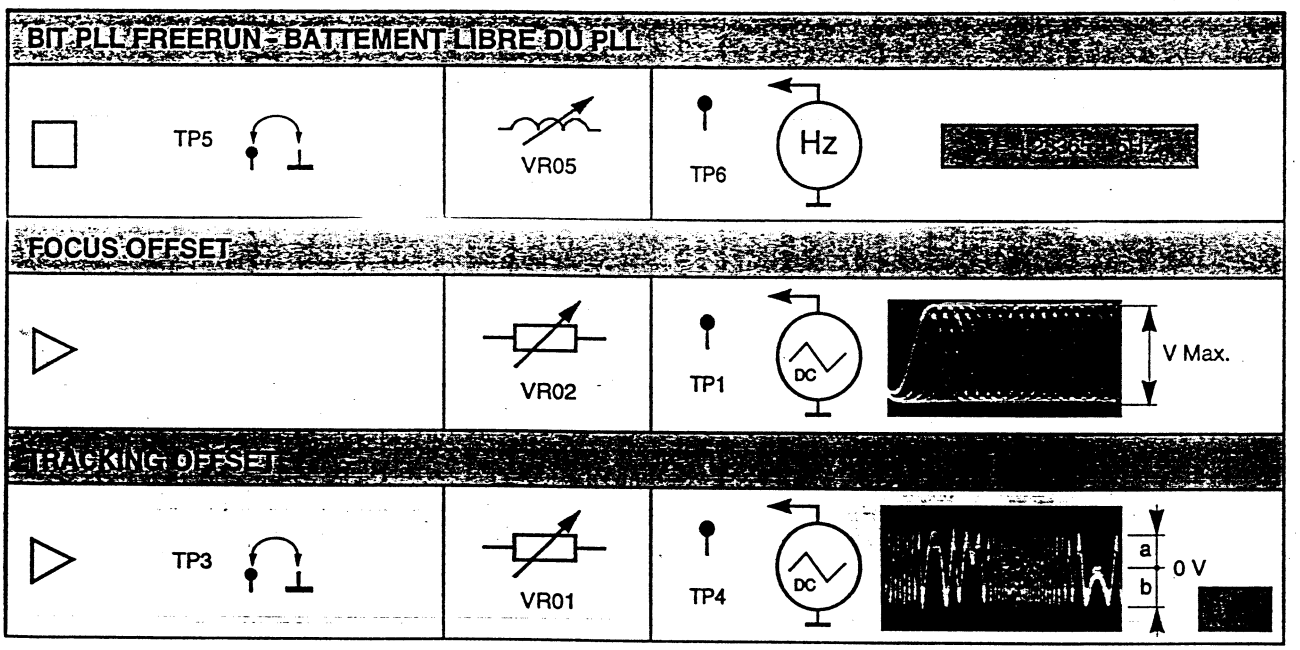
		Gf	Δf = 22,5 kHz f = 400 Hz f	10888 KHZ		V
IF	1	Gf Ve > 10 mV	10,7 MHz		T 101	10,7 MHz 
	2				T 103	
FM MF	3	Gf 50 µV	87,9 MHz	87,9 MHz	L 103	V = 1,35 V ± 0,05V
	4		107,9 MHz	107,9 MHz		V = 9 V ± 0,05 V
	5		90,1 MHz	90,1 MHz	L 102	max.
	6		106,1 MHz	106,1 MHz	TC 101	

Decoder - décodeur

	Gf		f	10888 KHZ		Hz
1	Ve = 10 mV ▽		98,1 MHz	98,1 MHz	SFR 101	TP3 f = 76 kHz ± 200Hz



ADJUSTMENTS - REGLAGES - ABGLEICH - AJUSTES - REGOLAZIONE



ADSJUSTMENTS	REGLAGES	EINSTELLUNGEN	AJUSTES	REGOLAZIONE
1 Tape speed Vitesse de défilement Bandgeschwindigkeit Velocidad de la cinta Velocita del nastro	TEST f = 3000 Hz	SFR 401		Hz f = 3005 Hz ± 35 Hz